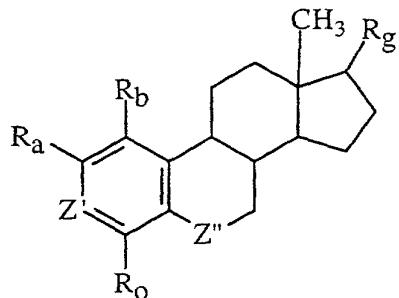


CLAIMS

We claim:

1. A compound of the general formula:



wherein:

- R_b and R_o are independently -H, -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -CH₂-OH, -NH₂; or N(R₆)(R₇), wherein R₆ and R₇ are independently hydrogen or an alkyl or branched alkyl with up to 6 carbons;
- R_a is -N₃, -C≡N, -N₃, -C≡C-R, -C=CH-R, -R-C=CH₂, -C≡CH, -O-R, -R-R₁, or -O-R-R₁ where R is a straight or branched alkyl with up to 10 carbons or aralkyl, and R₁ is -OH, -NH₂, -Cl, -Br, -I, -F or CF₃;
- Z' is >CH, >COH, or >C-R₂-OH, where R₂ is an alkyl or branched alkyl with up to 10 carbons or aralkyl;
- >C-R_g is >CH₂, >C(H)-OH, >C=O, >C=N-OH, >C(R₃)OH, >C=N-OR₃, >C(H)-NH₂, >C(H)-NHR₃, >C(H)-NR₃R₄, or >C(H)-C(O)-R₃, where each R₃ and R₄ is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl; and
- Z'' is >CH₂, >C=O, >C(H)-OH, >C=N-OH, >C=N-OR₅, >C(H)-C≡N, or >C(H)-NR₅R₅, wherein each R₅ is independently hydrogen, an alkyl or branched alkyl with up to 10 carbons or aralkyl.

2. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is -C≡C-CH₃,
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >CH₂.

3. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is OCH₂CF₃
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >C=O.

4. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is OCH₂CF₃
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >C=NOH.

5. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >CH₂.

6. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is OCH₂CF₃
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >CH₂.

7. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is CH=CH₂
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >CH₂.

8. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is E-CH=CHCH₃
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >CH₂.

9. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is NHCO₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >CH₂.

10. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is NHCOCH₃
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >CH₂.

11. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >C=O.

12. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >OH.

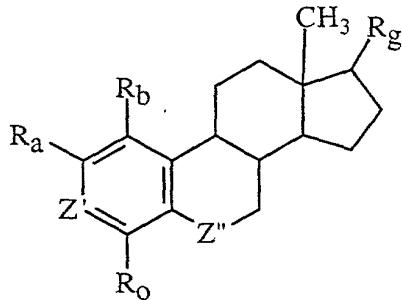
13. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >C=NOH.

14. The compound of Claim 1, wherein :

R_b and R_o are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z'' is >C=NOCH₃.

15. A method of inhibiting angiogenesis comprising administering to an endothelial cell an angiogenesis inhibiting amount of a compound of the general formula:



wherein:

- a) R_b and R_o are independently -H, -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -CH₂-OH, -NH₂; or N(R₆)(R₇), wherein R₆ and R₇ are independently hydrogen or an alkyl or branched alkyl with up to 6 carbons;
- b) R_a is -N₃, -C≡N, -N₃, -C≡C-R, -C=CH-R, -R-C=CH₂, -C≡CH, -O-R, -R-R₁, or -O-R-R₁ where R is a straight or branched alkyl with up to 10 carbons or aralkyl, and R₁ is -OH, -NH₂, -Cl, -Br, -I, -F or CF₃;
- c) Z' is >CH, >COH, or >C-R₂-OH, where R₂ is an alkyl or branched alkyl with up to 10 carbons or aralkyl;
- d) >C-R_g is >CH₂, >C(H)-OH, >C=O, >C=N-OH, >C(R₃)OH, >C=N-OR₃, >C(H)-NH₂, >C(H)-NHR₃, >C(H)-NR₃R₄, or >C(H)-C(O)-R₃, where each R₃ and R₄ is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl; and
- e) Z'' is >CH₂, >C=O, >C(H)-OH, >C=N-OH, >C=N-OR₅, >C(H)-C≡N, or >C(H)-NR₅R₅, wherein each R₅ is independently hydrogen, an alkyl or branched alkyl with up to 10 carbons or aralkyl.

16. The method of Claim 15, wherein :

R_b and R_o are H,
 R_a is -C≡C-CH₃,
 Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
 Z'' is >CH₂.

17. The method of Claim 15, wherein :

R_b and R_o are H,
 R_a is OCH_2CF_3
 Z' is $>C-OH$,
 $>C-R_g$ is $>C(H)-\beta-OH$, and
 Z'' is $>C=O$.

18. The method of Claim 15, wherein :

R_b and R_o are H,
 R_a is OCH_2CF_3
 Z' is $>C-OH$,
 $>C-R_g$ is $>C(H)-\beta-OH$, and
 Z'' is $>C=NOH$.

19. The method of Claim 15, wherein :

R_b and R_o are H,
 R_a is OC_2H_5
 Z' is $>C-OH$,
 $>C-R_g$ is $>C(H)-\beta-OH$, and
 Z'' is $>CH_2$.

20. The method of Claim 15, wherein :

R_b and R_o are H,
 R_a is OCH_2CF_3
 Z' is $>C-OH$,
 $>C-R_g$ is $>C(H)-\beta-OH$, and
 Z'' is $>CH_2$.

21. The method of Claim 15, wherein :

R_b and R_o are H,
 R_a is $CH=CH_2$
 Z' is $>C-OH$,
 $>C-R_g$ is $>C(H)-\beta-OH$, and
 Z'' is $>CH_2$.

22. The method of Claim 15, wherein :

R_b and R_o are H,
 R_a is $E-CH=CHCH_3$
 Z' is $>C-OH$,
 $>C-R_g$ is $>C(H)-\beta-OH$, and
 Z'' is $>CH_2$.

23. The method of Claim 15, wherein :

R_b and R_O are H,
R_a is NHC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z" is >CH₂.

24. The method of Claim 15, wherein :

R_b and R_O are H,
R_a is NHCOCH₃
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z" is >CH₂.

25. The method of Claim 15, wherein :

R_b and R_O are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z" is >C=O.

26. The method of Claim 15, wherein :

R_b and R_O are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z" is >OH.

27. The method of Claim 15, wherein :

R_b and R_O are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z" is >C=NOH.

28. The method of Claim 15, wherein :

R_b and R_O are H,
R_a is OC₂H₅
Z' is >C-OH,
>C-R_g is >C(H)-β-OH, and
Z" is >C=NOCH₃.